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## RESERVES FOR WAYS TO RAISE LABOR PRODUCTIVITY IN SOCIALIST AGRICULTURE

/ Following is the translation of an unsigned article in Voprosy Ekonomiki, No. 2, Moscow, February 1961, pages 154-158\_/

An expanded session of the scientific councils of the Institute of Economics of the Academy of Sciences USSR, the Economic Scientific Research Institute of the State Economic Council (NIEI), the All-Union Scientific Research Institute of Agricultural Economics (VNIESKh) and of the Department of Soviet Economics of the Higher Party School with the Central Committee of the CPSU took place in October 1960 and was devoted to the problem of "Reserves and ways of raising the productivity of labor in socialist agriculture."

The work included the participation of many Moscow scientific worker-economists, as well as those from the union republics in addition to representatives from planning and statistical organs on the practice of agricultural production.

sponding member of the Academy of Sciences USSR, K. N. Plotnikov, in his introductory words pointed out that the combined session of the scientific councils is devoted to one of the most important economic problems—that of the productivity of labor in socialist agriculture.

The level of productivity of common labor is an economic index of primary importance. The volume of agricultural production in our country over the past years increased along with a simultaneous decrease in the size of the agricultural population. The number of workers engaged in agriculture is decreasing while the gross production is growing; in other words an increase in the productivity of agricultural labor is taking place.

In 1957 the Institute of Economics of the Academy of Sciences USSR in conjunction with the Economic Scientific Research Institute of the State Planning Commission USSR and the All-Union Scientific Research Institute of Agricultural Economics conducted a large scientific conference on the problems of the productivity of labor in socialist agriculture. At that time the center of attention was occupied by problems relating to methods of measuring the productivity of labor.

A scientific work was published by the collective of economistsagronomists on the basis of materials yielded by this conference, which is an aid in the implementation and application of methodology and methods for measuring the productivity of agricultural labor to those engaged in practical work.

The principal issues involved in the work of the conference, that took place during 1960, pertained to ways of raising the productivity of labor, to determine the sources, factors, reserves and methods inherent in a rapid growth of the productivity of labor.

Ye. S. Karnaukhova (Institute of Economics of the Academy of Sciences USSR), in her report entitled "Raising the Productivity of Labor -- a Basic Problem in the Development of Kolkhoz and Sovkhor Production" stressed the very important matter of revealing reserves and ways for raising the productivity of labor. The report shows the dynamics and the level of the productivity of labor as well as the problems inherent in its growth during the seven year period. Technical progress is called upon to perform a signific nt role in raising the productivity of labor. A proper elaboration of the concept of technical progress is, however, necessary. It would be incorrect to consider the mechanization of the work processes alone as technical progress. Technical progress includes continuous perfection of the principal means of agricultural productionland, the constant improvement of its fertility as well as the improvement of seed growing and the perfection of cattle strains.

A special section of this report was devoted to the methods of accounting for the expenditure of the overall common labor, which allows a more precise estimation of the fluctuations in the level of the productivity of labor, to establish price differentiation, price levels, etc.

The lecturer considers indices showing labor energy and fund supplies imperfect in view of the fact that the principal means of agricultural production which is the land and its economic fertility are not considered in these indices. The condition of the land, however, along with its economic fertility have a decisive bearing on the level of the productivity of labor. In the opinion of the lecturer all the efforts of the entire system of the scientific institutions of the VASKhNIL (Vsesoyuznaya Akademiya Sel'skokhozyaystvennykh Nauk imeni V. I. Lenina—All-Union Academy of Agricultural Sciences imeni V. I. Lenina) as well as those of the practicians—innovators of production must be directed at increasing the fertility of the land. State measures that assure an increase in the fertility of the land are also needed.

Technical progress as a factor in the increase of productivity of labor in agriculture signifies profound changes in the technology and organization of production. In connection

with that an important role is performed by the study and a rapid dissemination of experience of the production leaders in all branches of agriculture.

If the experience of the leaders in grain farming, cotton growing, the production of potatoes, sugar beets, pork and milk, that is available in our country would be disseminated throughout all areas producing these crops including the animal husbandry branches, then the productivity of labor in those sections could be increased more than sixfold. A possibility to direct 11.3 million workers into other branches and to overtake the USA in the level of the productivity of labor would then be created.

Further, the report examined in detail the problems of utilizing labor resources, the distirubtion of agricultural production and its influence on the increase in the productivity of labor. According to calculations made by the lecturer, a shift of the bulk of grain production towards the East, with consideration of the cost involved in the moving operation, would yield a saving of almost 2 million manpower days.

A. I. Tulupnikov (VNIESKh), in his report entitled "Basic Factors in Raising the Productivity of Labor in the Agriculture of the USSR During the Present Stage," examined a series of important problems associated with the implementation of scientifically founded systems of conducting agriculture, and a rational specialization and concentration of agricultural production.

S. G. Kolesnev (VASKhNIL) presented a report entitled "Technical Progress and the Productivity of Labor in the Agriculture of the USSR." He stressed the inseparable relationship between three elements: the implementation of technology, changes in the technology and improvement in the organization and productivity of labor.

The agriculture of the USSR is differentiated by its extreme variety of natural and economic conditions of production, which have an effect on the selection of alternatives for the technical solution of production problems and methods of technical progress. Consequently there can be no mention of a creation of some kind of a universal, unified system of machines for the mechanization of agricultural production in all regions of our country.

Natural conditions alone do not exert an influence on the direction of technical progress and the creation of new machine systems. Economic conditions are also felt to a great extent, in the first place the provision of manpower for the various regions. Let us for instance take the virgin land regions, where extensive areas are plowed and a great lack of manpower is still felt. During harvest time in 1960 the steppe

regions employed combinations of two or even three reaping units. Life itself indicates that instead of these bulky and complex homemade reaping units it is necessary to create highly productive wide-cut machines and implements for a sharp decrease in the production times for the different types of projects, particularly in sowing and harvesting.

The use of powerful, fast tractors makes it necessary to construct predominantly tractor-mounted implements, which, in their construction features, could be adapted to these new traction machines. Agriculture primarily needs universal machines, such as traction machinery as well as operational machinery with a wide variety of power and speeds.

K. P. Obolenskiy (NIEI of the State Economic Council USSR) in his report entitled "The Revelation of Reserves and Problems of Planning the Productivity of Labor in Agriculture" as well as B. I. Braginskiy (NIEI of the State Economic Council USSR), who gave a report entitled "On the Planning of the Productivity of Labor in Agriculture," both elaborated on the problem of methodology and methods of both the prospective and current planning of the productivity of labor in agriculture.

I. A. Borodin (Institute of Economics of the Academy of Sciences USSR) gave a report on "Specialization as a Factor in the Rise of Labor Productivity in Agriculture." He stressed the economic advantages of specialization of agriculture and pointed out there are certain achievements in this field, principally in large zones and oblasts.

In speaking of the principles of specialization and combination among the various branches of agriculture, the lecturer pointed out that the basic criteria of specialization in agriculture must include the quality of the production. The economic effectiveness of specialization, according to I. Borodin's opinion, is determined by a whole system of indices, one of which is the yield of gross and commodity production per unit of area. The lecturer does not agree with the point of view which asserts that under socialism commodity production alone determines the nature and level of specialization. Under conditions of a planned economy there are possibilities for considering not only the commodity portion of production, but its non-commodity portion as well.

M. I. Tikhomirov (Siberian Department of the VNIESKh) in his report examined the role of standardization in the increase of productivity of agricultural labor. He explained the problem of the necessity for a more rapid practical implementation of mechanized and automated methods of accounting for the expenditure of labor and for the evolution of methods for technical standardization as well as the publication of handbooks on the organization, standardization and remuneration of labor in agriculture.

- A. A. Radchenko (Institute of Economics of the Ukrainian SSR) reported on "The Zonal Fluctuations in the Level of the Productivity of Labor and Profits in the Kolkhozes." The zonal factor exerts a considerable influence on the economic indices showing the results of the productive activities of agricultural enterprises; of primary influence is, of course, the soil and climatic conditions of production. These conditions are reflected on the nature of the production specialization of the agricultural enterprises as well. In order to evaluate the economic condition of the kolkhoz or of the sovkhoz a single index showing the productivity of labor is not sufficient. An additional index of the effectiveness of kolkhoz production is the utilization of land—it provides a key to an understanding of the sources and reasons for the fluctuation of profits at the kolkhozes.
- S. D. Cheremushkin (VNIESKh) in his report entitled "The Utilization of Land and anIncrease in the Productivity of Labor" pointed out that we consider as advanced such kolk-hozes, sovkhozes and regions, which obtain the highest yield of agricultural and livestock products per 100 hectares of agricultural land with the least expenditure of labor and funds per unit of production. This became a general rule. Along with that there was always the question of what the 100 hectares of agricultural property represented in a qualitative sense in every case. It is known that in agricultural production, in contrast with industrial production, equal amount of labor of similar skill and availability yields varying results because of the differences in the fertility of the land.

The influence of natural conditions on the productivity of labor in agriculture must not be overevaluated; it is, however, very evident that in our great country, which contains such differences in climate, soil and the vegetation cover, the differences in natural conditions perform a certain role.

The quality of agricultural land may be judged on the basis of various indices, for instance, on the basis of data showing the density of the cattle population. A more comprehensive representation of the productivity of agricultural land is yielded by a comparison between gross production and income per unit of area of agricultural land.

The All-Union Scientific Research Institute of Agricultural Economics developed a method for an economic evaluation of land. The first objects in the evaluation of land are the soil and the soil differences. Criteria for such evaluations are the gross product and the pure income from plant growing that is obtained per unit of area corresponding to the soil differences. The evaluation considers two aspects: the basis of the gross product for revealing the relative value

of the land from a viewpoint of the possible volume of production (gross production), and on the basis of pure incomegin order to establish the difference between the income potential (profitableness) per unit of area. The soil evaluation scale is established on a 100 point system. The harvest of agricultural crops, the gross product and pure income that are obtained in the calculations per unit of area for the various types of soil, that are necessary for the compilation of a scale, are established on the basis of data especially selected for that purpose from typical kolkhozes and soykhozes.

Results of the economic evaluation of land may find application not only in the solution of problems of differentiation for tax purposes and in the perfection of purchase prices, but also, primarily, in the specialization and distribution of agriculture, production planning and state purchases of agricultural production per 100 hectares of agricultural land. In addition to that they may be used in the evaluation of the production activities of individual enterprises and entire rayons, i.e. in the solution of problems inseparably associated with the revelation of additional reserves for the purpose of raising the productivity of labor in agriculture. The data yielded by evaluation of land may be utilized in planning and organization of agricultural production both for the country's rayons and for individual enterprises (kolkhozes and sowkhozes).

The report delivered by A. A. Ivanchenko (SOPS of the State Economic Council USSR)(Sovet po Izucheniyu Proizvoditelt-nykh Sil--Council for the Study of Productive Resources) was devoted to increasing the productivity of labor during the prospective period; his material was based on research of the prospectives for the development and distribution of agricultural production in the union republics and economic rayons of the country, in stages, with a consideration of the inexhaustible reserves for raising the productivity of labor that are available in agriculture.

D. I. Dumov (TsSU USSR)(Tsentral'noyeStatisticheskoye Upravleniye SSR—Central Statistical Administration USSR) reported on "The Method of Grouping in the Study of Factors of Growth of the Productivity of Labor in Agriculture."

Animated discussions resulted from the reports that were heard.

V. Ya. Churakov (Institute of Economics and Organization of Industrial Production of the Siberian Department of the Academy of Sciences USSR) in his report told of the experience gained in analyzing the utilization of labor resources in the

agriculture of Siberia. During the most difficult period of the year (autumn) the volume of full day loss of work time for common agriculture at the kolkhozes amounts to almost 1/5 of the entire fund of work days. The reaping work attracts a large number of workers from the outside, but at the same time the number of kolkhoz workers participating in this work, diminishes. It is evident that the common economy of the kolkhozes experiences its greatest loss of work time during that period. The lecturer offered a number of suggestions designed to raise the productivity of labor and to improve the utilization of the work day pool in the agriculture of Siberia.

V. F. Medvedev (Institute of Economics Academy of Sciences Belorussian SSR) reported that an elaboration of the problems of raising the productivity of labor was organized in Belorussia. The Institute of Economics of the Academy of Sciences Belorussian SSR conducted a study of the problems associated with the concentration of production and the specialization of agricultural enterprises. He agreed with I. Borodin's viewpoint that at the present time the concentration of production at the kolkhozes can be and must be conducted not only by amalgamating the kolkhozes, which is what occured heretofore, but primarily by branches, as well as the specialization of the farms in the production of one or two most important agricultural products.

K. I. Yeremeyev (VNIESKh) in his report stressed the importance of the analysis of not only the expenditures of live labor, but of materials, as well for the determination of reserves and of methods for raising the productivity of labor at the kolkhozes and sovkhozes. The more effectively the capital investments are used the lower is the fund consumption of production. The data cited by comrade Yeremeyev indicates that an increase in the effective use of capital investment leads to an increase in the productivity of labor. It is a very large reserve for the increase in the productivity of common labor. The problem consists of a more complete utilization of the sources for the increase in the effectiveness of capital investments.

V. I. Malishaus (Institute of Economics of the Academy of Sciences Lithuanian SSR) illuminated in detail the question of the influence of the quality of land on the level of labor productivity in the agriculture of the republic.

M. M. Allakhverdiyev (Institute of Economics of the Academy of Sciences Azerbaijan SSR) pointed out a necessity of elaborating the problems associated with increasing the productivity of labor, with respect to the individual most important branches of agriculture, types of crops and cattle.

V. V. Zalesskiy, a representative from the "Roela"

sovkhoz of the Estonian SSR in his report told of how the sovkhoz implements the suggestions developed by the scientific institutions into practice.

I. V. Shirshov (Institute of Economics of the Academy of Sciences Moldavian SSR) posed the question of the condition of the productivity of labor and the methods for raising it in the agriculture of Moldavia.

- I. I. Koz"yakev (TsNIEI of the State Planning Commission RSESR) (Tsentral nyv Nauchno Issledovatel skiy Ekonomicheskiy Institute-Central Economic Scientific Research Institute) stressed the timeliness of transferring from the general theoretic presentation of the problem regarding the productivity of labor to the study of reserves and measures for raising it at the kolkhozes and sovkhozes. He presented a number of suggestions for improving the specialization of the economies and for the study of the state of the productivity of labor in agriculture.
- R. E. Chentsov (of the affiliated academy of the Academy of Sciences USSR) pointed out that the reports failed to devote sufficient attention to one of the most important factors in the growth of the productivity of labor—that of material interest by both the agricultural enterprises and by the kolkhoz and sovkhoz workers.
- V. I. Malishaus (Institute of Economics of the Academy of Sciences Lithuanian SSR) illuminated in detail the influence of the quality of land on the level of the productivity of labor in the agriculture of the republic.
- Kh. K. Mayde's (Institute of Economics of the Academy of Sciences Estonian SSR) report was devoted to questions of mobilizing the reserves for increasing the productivity of labor in the kolkhozes of the Estonian SSR.
- V. D. Zaytsev (Institute of Economics of the Academy of Sciences Uzbek SSR) pointed out that at the present time the problem of the distribution and utilization of manpower, freed from agriculture is one of the most urgent problems. The attention of the economic science must be concentrated on it. Investigations in this field, however, are conducted in an unorganized marner.
- N. I. Bopov (MIEI of the State Economic Council USSR) reported on the results obtained by work conducted in the study of mathematical methods of analysis and planning of the productivity of labor by factors.
- D. N. Shapkin (Institute of Economics of the Academy of Sciences Turkmen SSR) touched on the problems of technical progress as a factor in the rise of the productivity of labor in the kolkhozes of Turkmenia.
- M. I. Moiseyev (VASKhNIL) focused his attention on the peculiarities of technical progress in agriculture with its

great variety of plants and animals, varieties of soil, etc.

K. A. Nurmatov (Institute of Economics of the Academy of Sciences Uzbek SSR) spoke of improving the organization in the utilization of technology as a large reserve for increasing the productivity of labor in cotton growing.

N. P. Altayskiy (VNIESKh) in his lecture shed some light on the organization of labor as one of the most important factors for raising the productivity of labor.

Academician S. G. Strumilin appeared at the conference. He dwelled on the problems of comparing the productivity of labor in the agriculture of the USSR with that of the USA.

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In addition to the plenary session, sections on plant growing and animal husbandry were also working at the conference, and presented a series of reports and lectures.

They cited results yielded by investigations that were conducted regarding the influence of individual factors and their combined effect on the growth of the productivity of labor; concrete suggestions were offered regarding further increase in the productivity of labor in agriculture. Much attention was devoted to an illumination of the experience obtained at the leading rayons, sovkhozes, kolkhozes and brigades in the matter of raising the productivity of labor.

The combined session of the scientific councils adopted recommendations for the scientific institutions regarding the further development of the most important problems of agricultural production and the coordination of scientific forces. The recommendations devote special attention to the necessity for expanding the research designed to raise the productivity of labor in animal husbandry. The most important factors in the growth of labor productivity is the further perfection and implementation of economically founded systems of farming, systems of land cultivation and animal husbandry, agricultural veterinary measures directed at raising the economic fertility of the soil, the crop yield of agricultural crops and the productivity of animals, the implementation of full scale mechanization, electrification and automation of agricultural production; the improvement in the utilization of labor (the development and implementation of progressive forms of labor organization, the complete utilization of labor resources. the further development of a material stimulus for agricultural workers, an increase in the level of skill of the workers and a widespread organization of socialist competition); the perfection of territorial distribution of agircultural production; the specialization of farms as well as the concentration and intensification of production.

It was decided to delegate the direction and coordination of scientific research on these problems to the All-Union Scientific Research Institute of Agricultural Economics and to republican institutes of agricultural economics and organization. The coordination and direction of the elaboration of scientific methods of planning the productivity of labor at the kolkhozes and sovkhozes, rayons, oblasts and republics. the economic justification of the tempos and levels of the productivity of labor is to be delegated to the Economic Scientific Research Institute of the State Economic Council USSR.

The conference devoted special attention to the necessity of extending and accelerating the scientific elaboration of the problem of objective economic evaluation of agricultural lands, pointing out that it would be most fessible for the direction and coordination of the problem to be delegated to the VASKENIL.

The most important task confronting the economists, the scientific institutions, the Central Statistical Administration and the State Planning Commission USSR is the development of the prices for agricultural production and profit in production. The recommendations state that the coordination of scientific work on this problem should be delegated to the Institute of Economics of the Academy of Sciences USSR.

The resolutions regarding a necessity for the scientific elaboration of problems in the organization of labor and the utilization of labor resources in agriculture received the approval of all the participants of the conference.

In order to extend the zonal elaboration of problems pertaining to a rise in labor productivity, a decrease in the cost of production, in the prices and an evolution of profit by crops and branches, it was recognized that it would be rational to coordinate the projects and to conduct regional scientific conferences: on cotton growing--in Uzbekistan along with the Central Asian and Trans Caucasian republics, on horticulture and viniculture in Moldavia and Trans Caucasia, on grain production and animal husbandry in Novosibirsk and Akmolinsh, on animal husbandry in the BSSR and the republics of the Baltic region.

A resolution was adopted regarding the development of a concrete plan for measures to bring about coordination in scientific work by the appropriate institutes. are Armaniya wa kata ka kata iya ya k

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